FIG. 1A

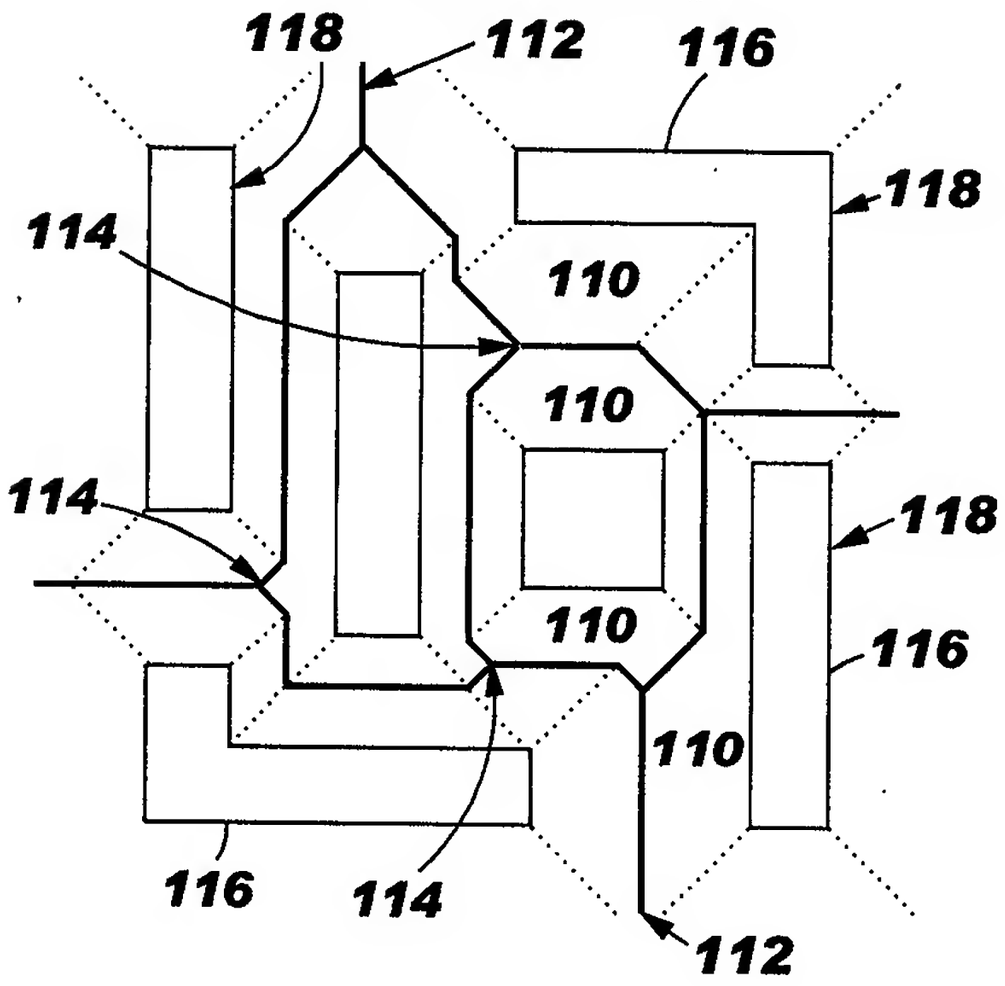


FIG. 2

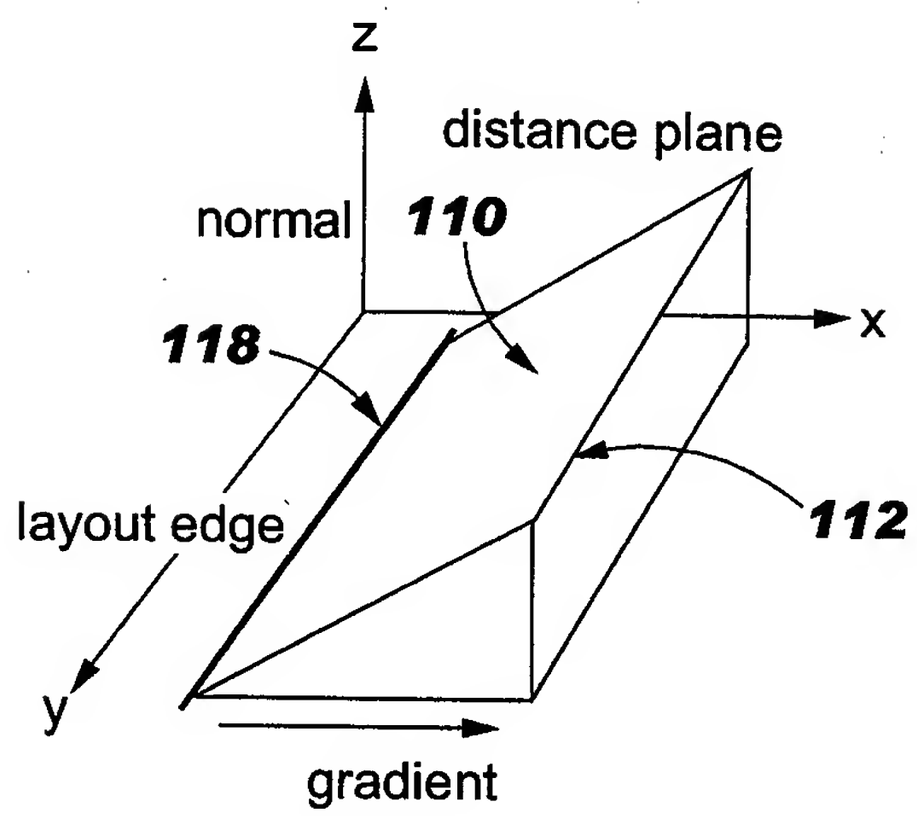


FIG. 1B

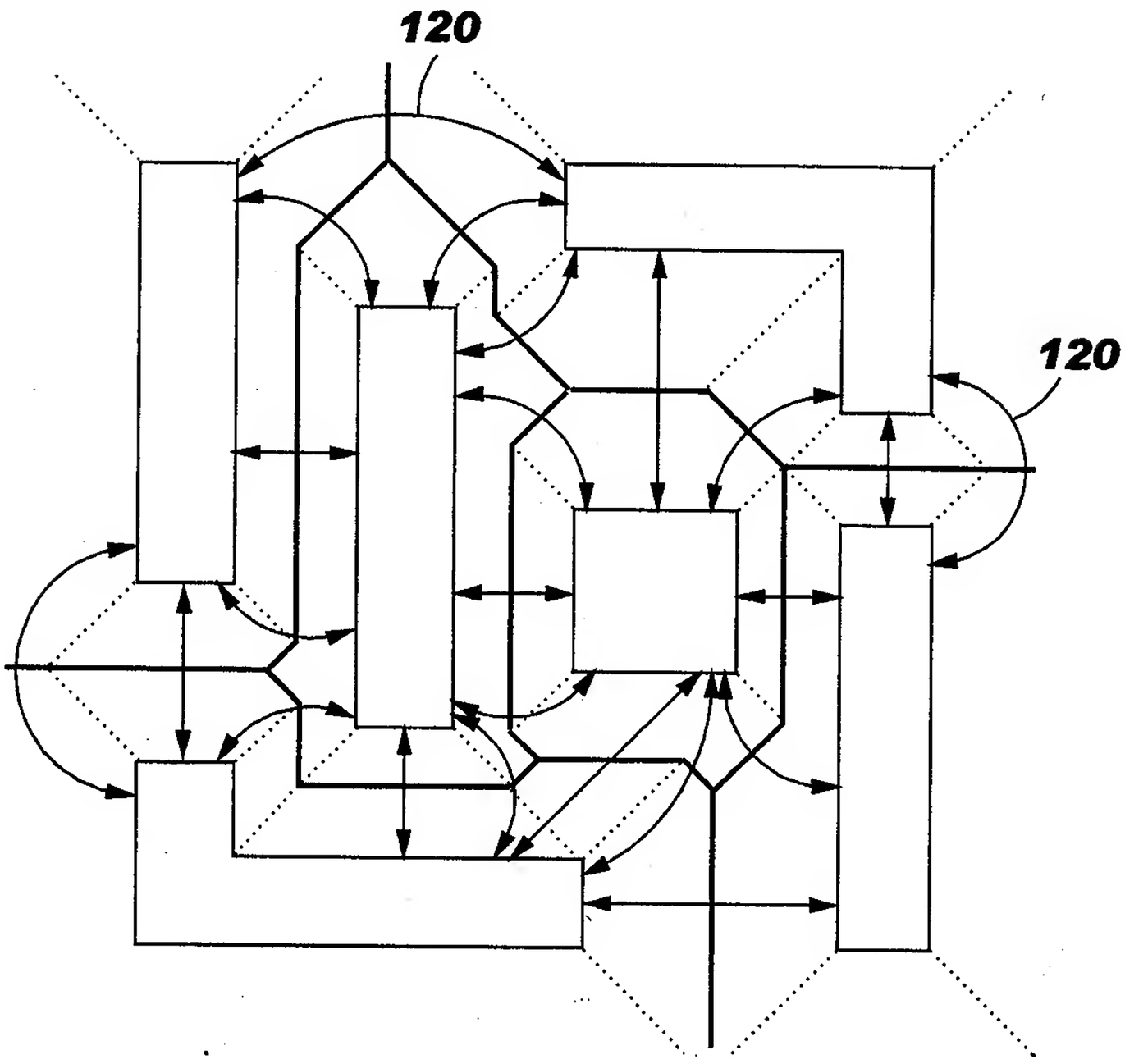


FIG. 3

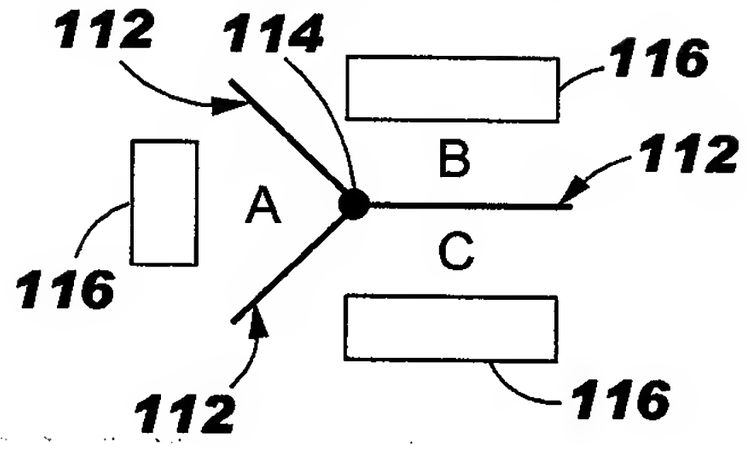


FIG. 4

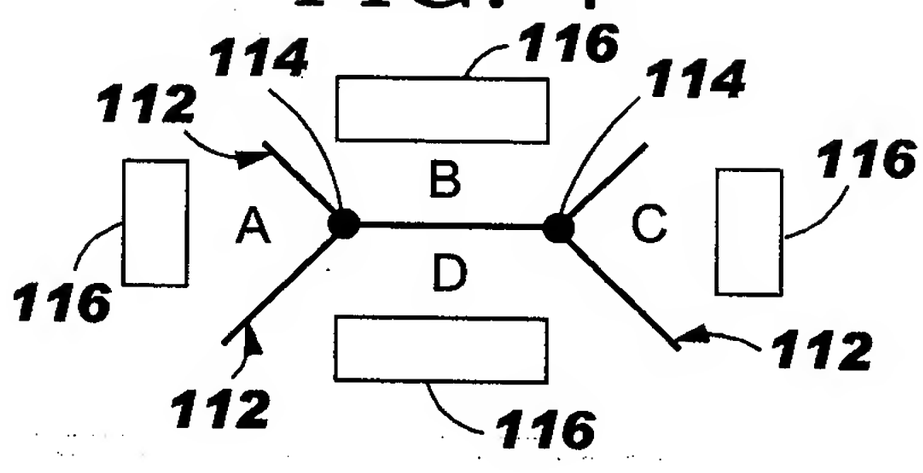


FIG. 5

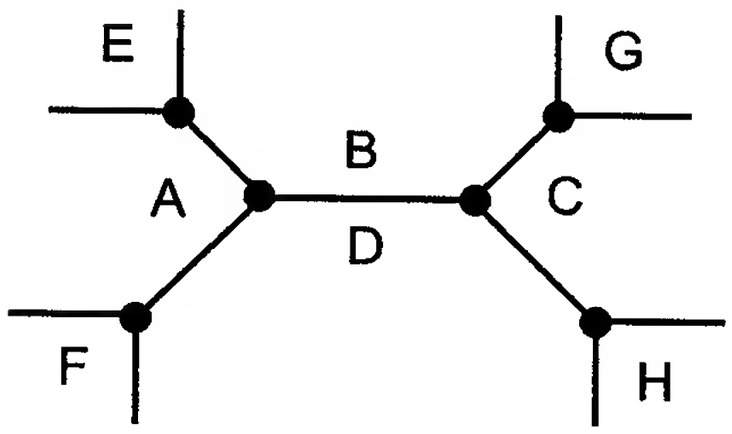


FIG. 6A

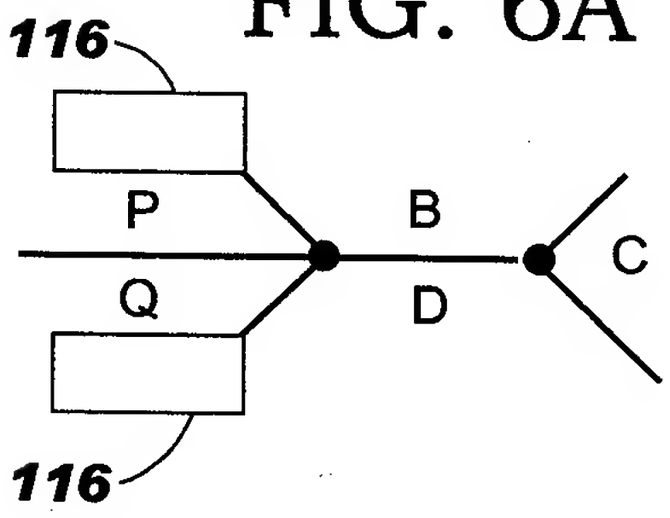


FIG. 6B

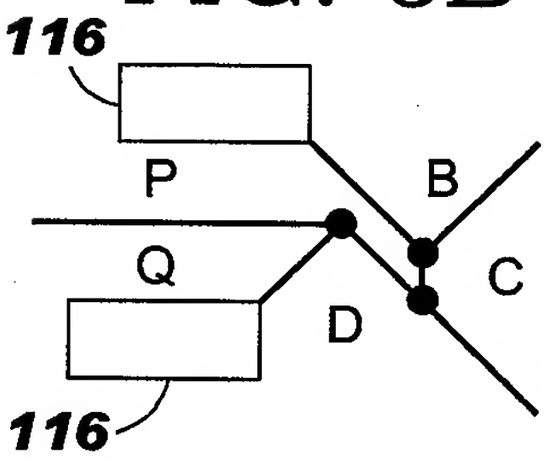


FIG. 6B

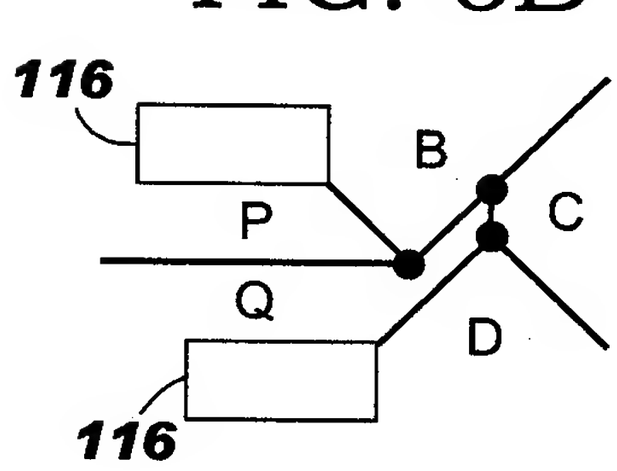


FIG. 7A

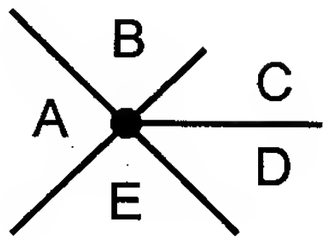


FIG. 7B

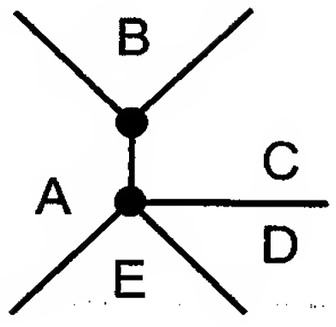


FIG. 7C

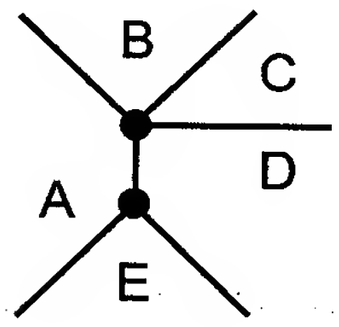


FIG. 7D

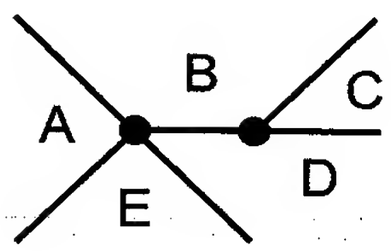


FIG. 7E

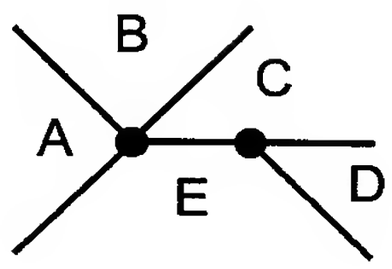


FIG. 7F

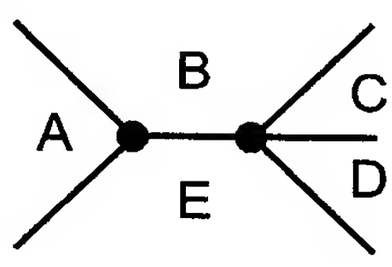


FIG. 8

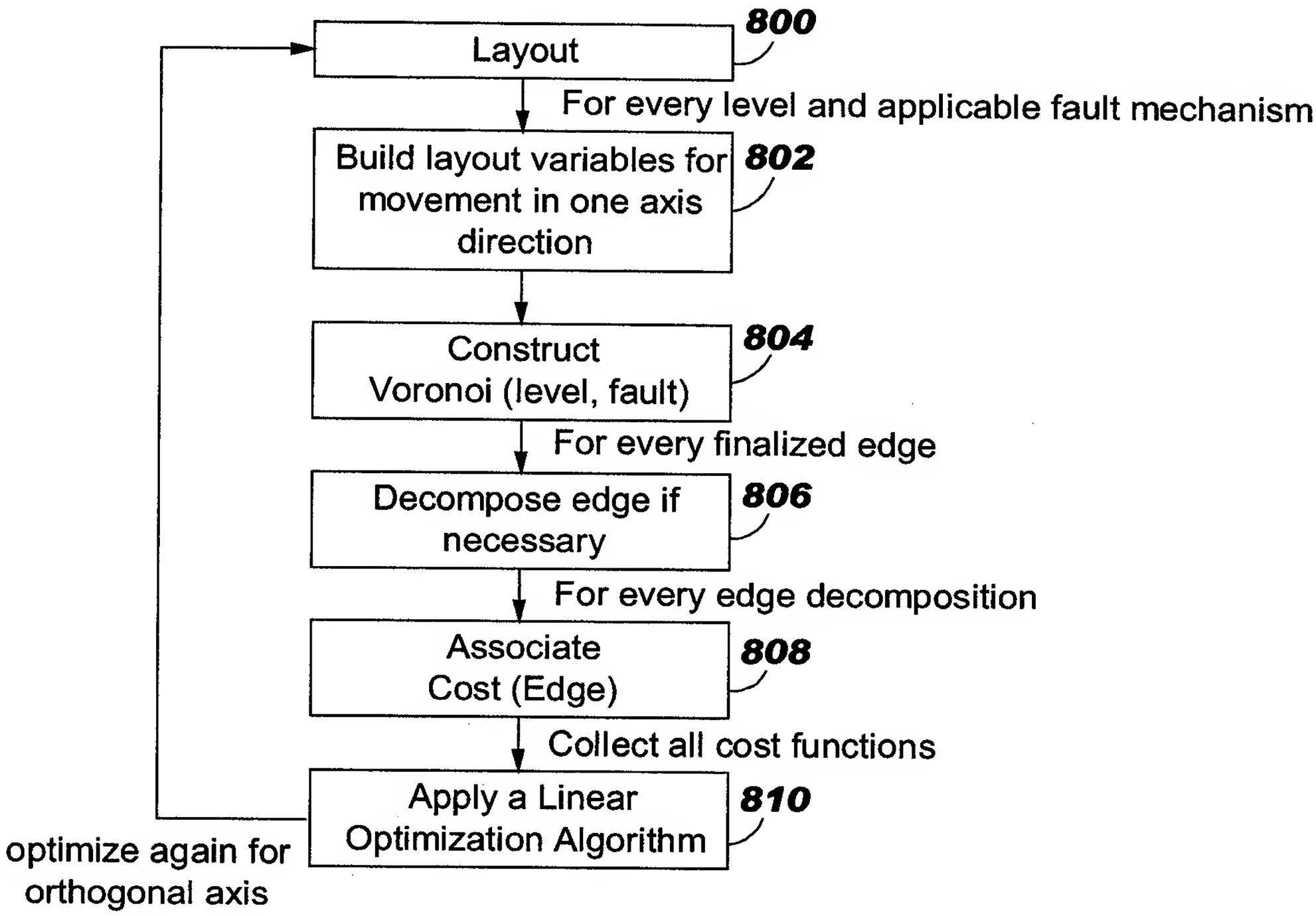


FIG. 9A

Bisector(A, B, C, D) = a rotation or reflection of gradients((-1,0), (0,1), (1,0), (0,-1))

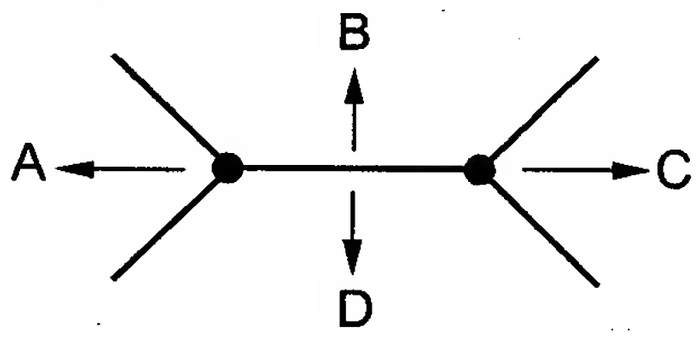
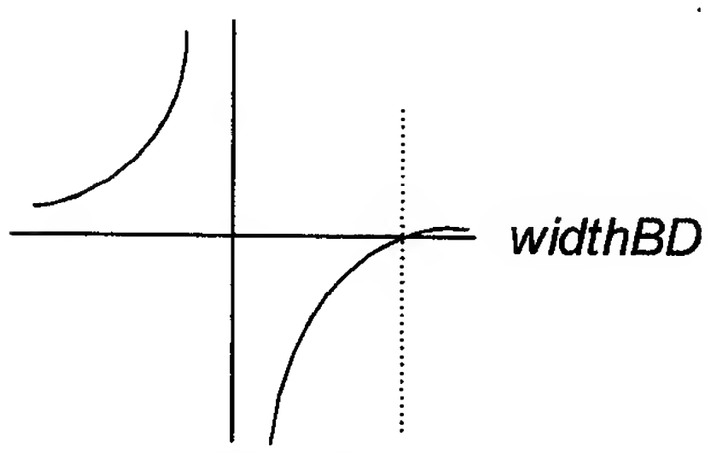


FIG. 9B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k(widthCA - widthBD)}{widthBD}$$
$$widthCA - widthBD \geq 0$$
$$widthBD \leq 0$$

FIG. 9C



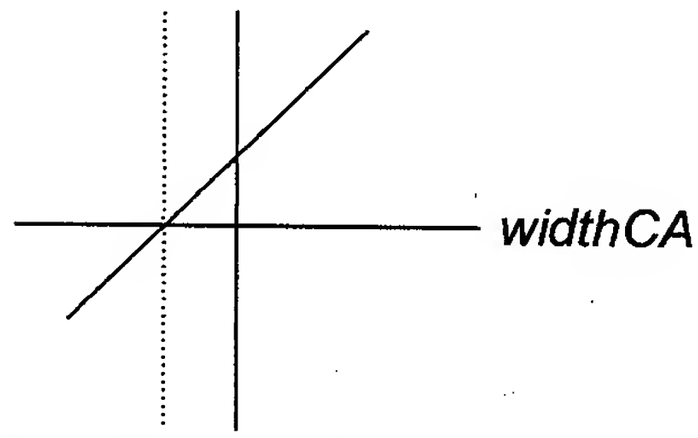


FIG. 10A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,1), (-1,0), (0,-1))

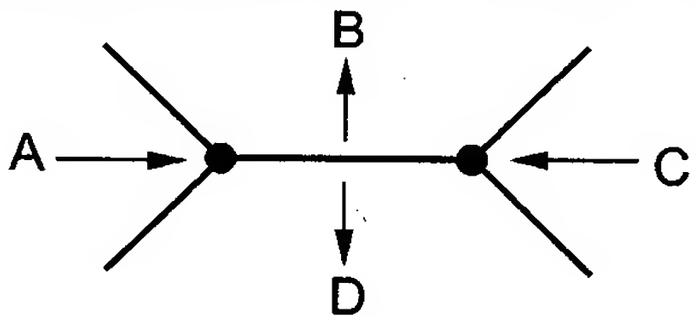
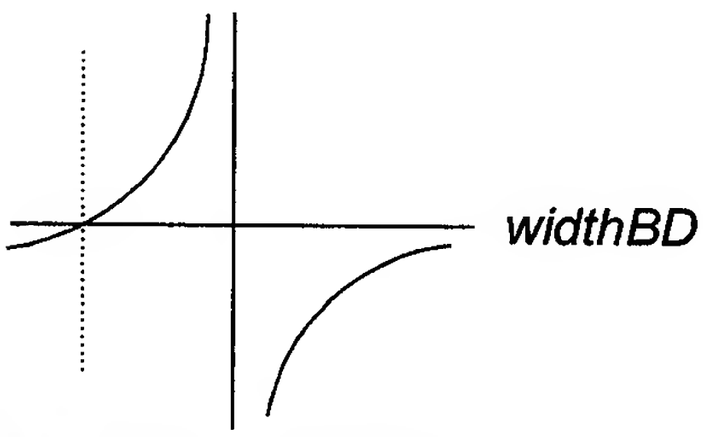


FIG. 10B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k(widthCA + widthBD)}{widthBD}$$
$$widthCA + widthBD \geq 0$$
$$widthBD \leq 0$$

FIG. 10C



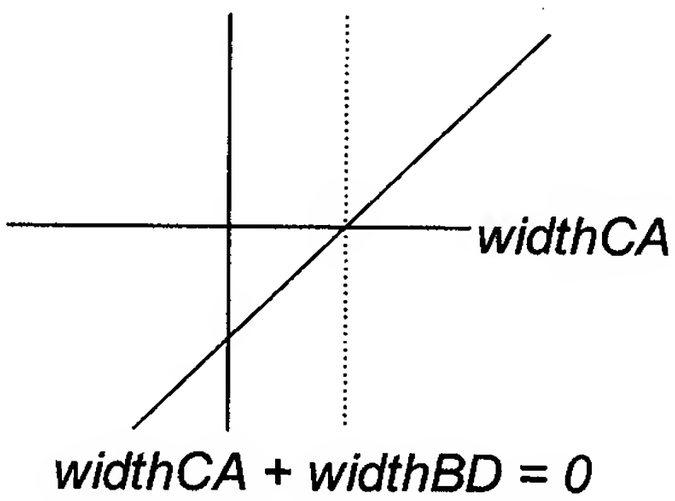
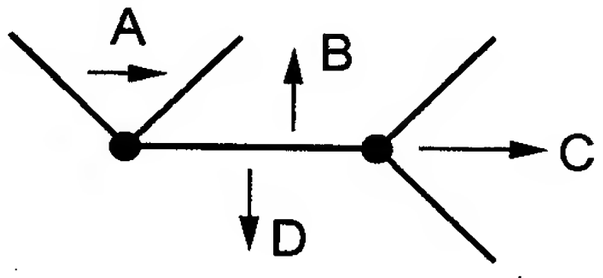


FIG. 11A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,1), (1,0), (0,-1))



$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\frac{widthCA}{widthBD}$$
$$widthCA \geq 0$$
$$widthBD \leq 0$$

FIG. 11B

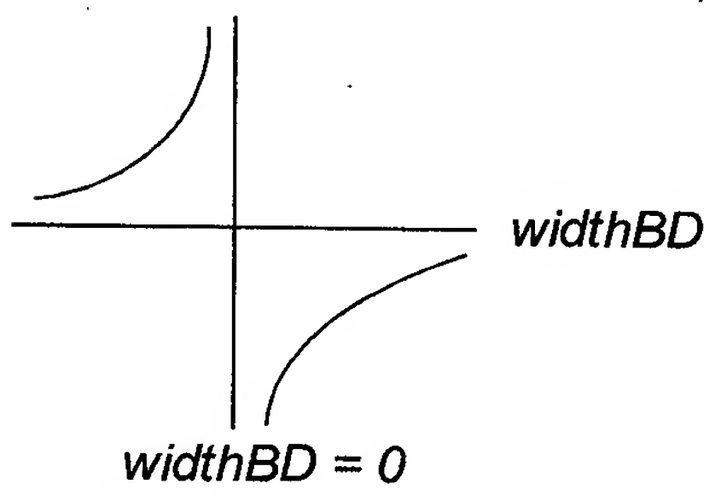


FIG. 11C

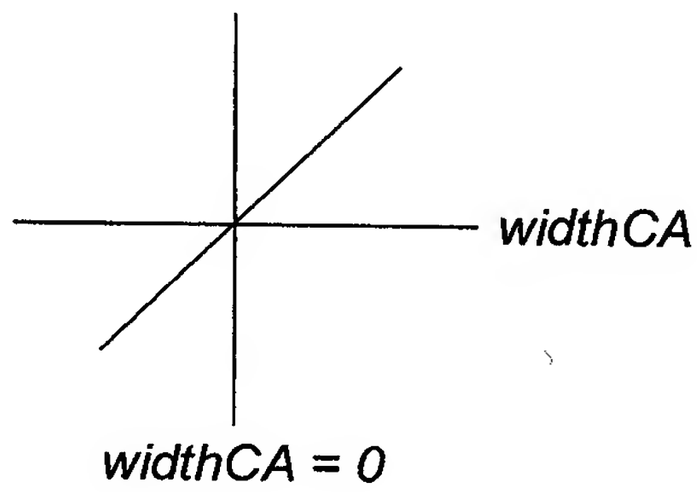
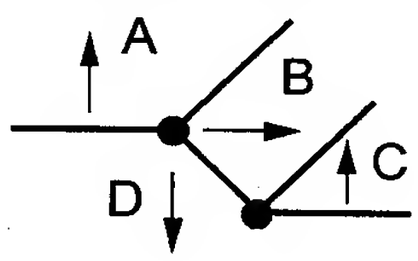


FIG. 12A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (1,0), (0,1), (0,-1))



$$widthDC = y_D - y_C$$
$$widthDA = y_D - y_A$$
$$CriticalArea = \frac{k}{2}\ln\frac{widthDC}{widthDA}$$
$$widthDC - widthDA \geq 0$$
$$widthDA \geq 0$$

FIG. 12B

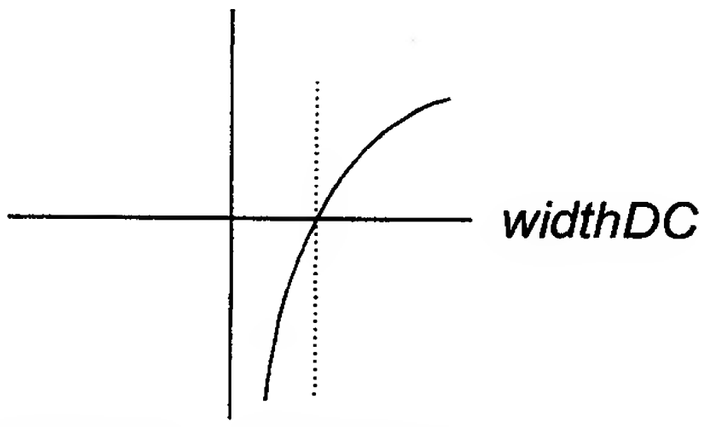


FIG. 12C

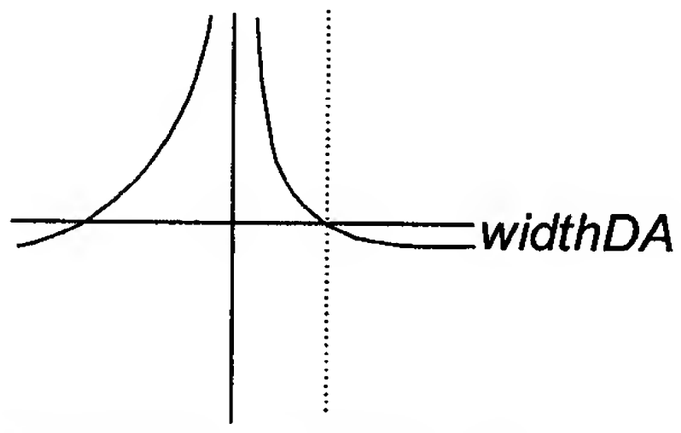
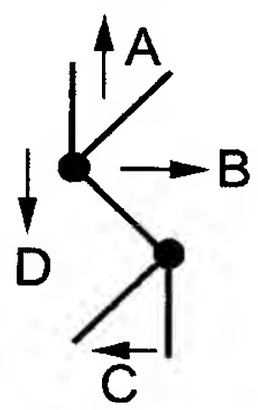


FIG. 13A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (1,0), (-1,0), (0,-1))



$$widthDA = y_D - y_A$$

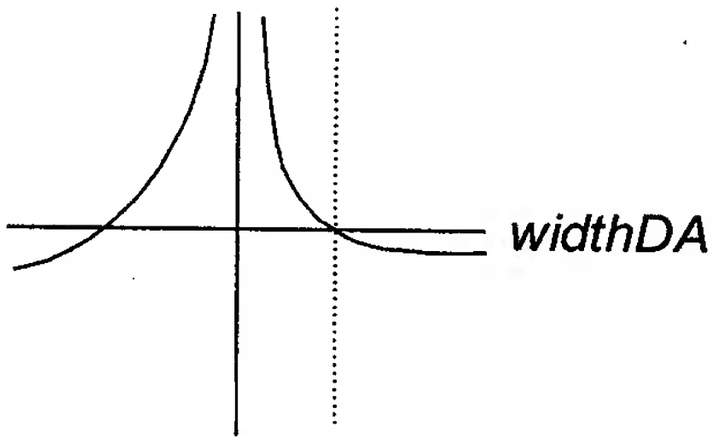
$$widthCB = x_C - x_B$$

$$CriticalArea = \frac{k}{2} \ln \frac{widthCB}{widthDA}$$

$$widthCB - widthDA \geq 0$$

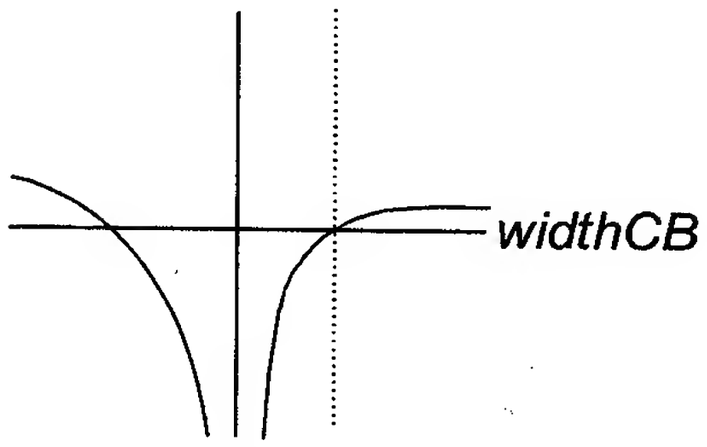
$$widthDA \geq 0$$

FIG. 13B



$$widthCB - widthDA = 0$$

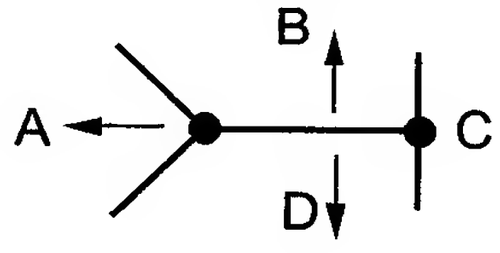
FIG. 13C



$$widthCB - widthDA = 0$$

FIG. 14A

Bisector(A, B, C, D) = a rotation or reflection gradients ((-1,0), (0,1), β(1,0), (0,-1))



$$widthCA = x_C - x_A$$

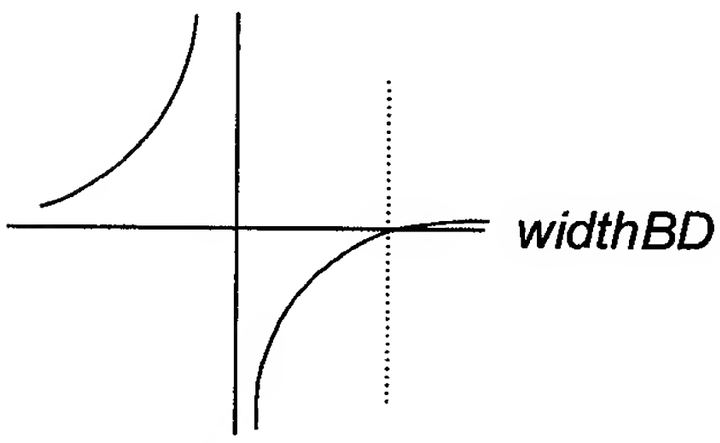
$$widthBD = y_B - y_D$$

$$CriticalArea = -\frac{k\left(widthCA - \frac{1}{2}\ widthBD\right)}{widthBD}$$

$$widthCA - \frac{1}{2} widthBD \geq 0$$

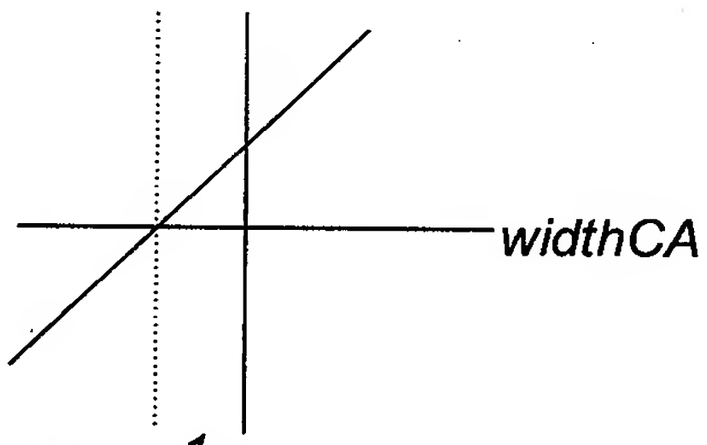
$$widthBD \leq 0$$

FIG. 14B



$$widthCA - \frac{1}{2} widthBD = 0$$

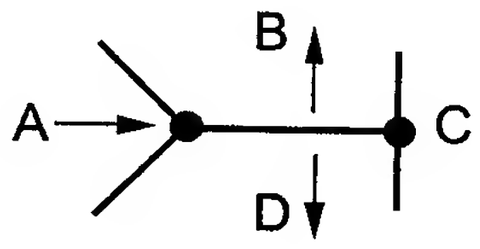
FIG. 14C



$$widthCA - \frac{1}{2} widthBD = 0$$

FIG. 15A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,1), β(1,0), (0,-1))



$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\left(widthCA + \frac{1}{2}\ widthBD\right)}{widthBD}$$
$$widthCA + \frac{1}{2}\ widthBD \geq 0$$
$$widthBD \leq 0$$

FIG. 15B

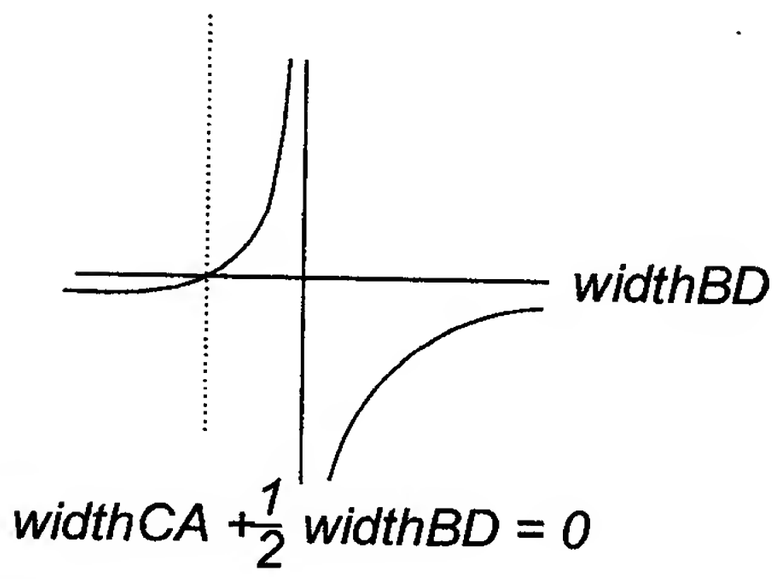


FIG. 15C

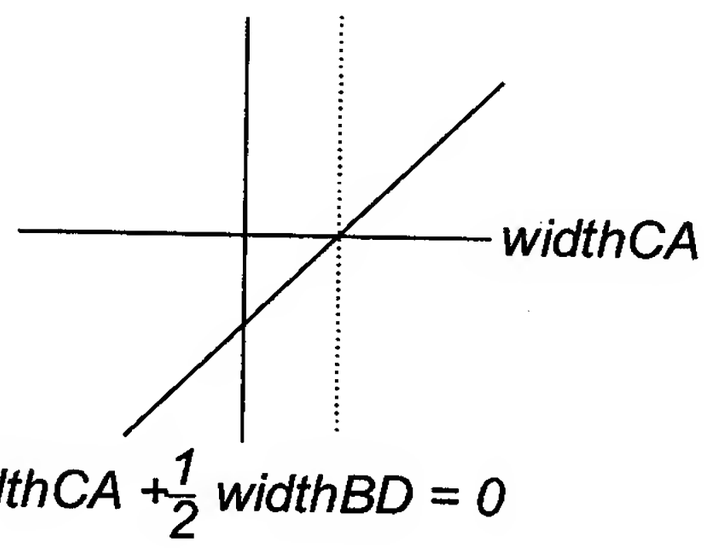
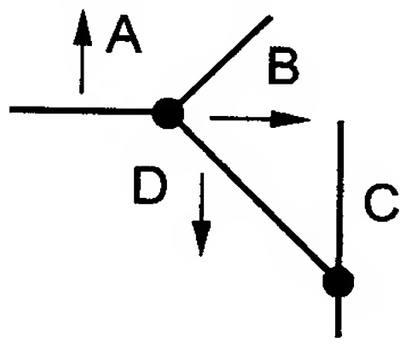


FIG. 16A

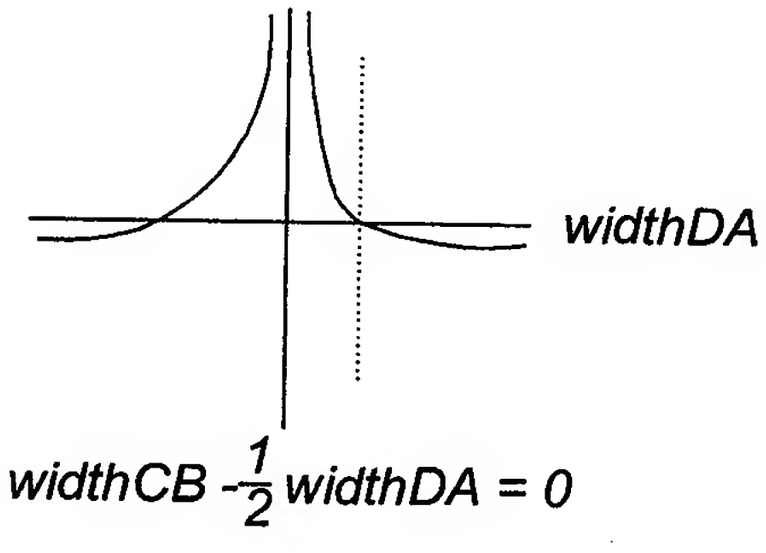
Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (1,0), β(1,0), (0,-1))



$$widthDA = y_D - y_A$$
$$widthCB = x_C - x_B$$
$$CriticalArea = \frac{k}{2}\left(\ln\frac{widthCB}{widthDA} + \ln 2\right)$$
$$widthCB - \frac{1}{2}widthDA \geq 0$$
$$widthDA \geq 0$$

FIG. 16B

FIG. 16C



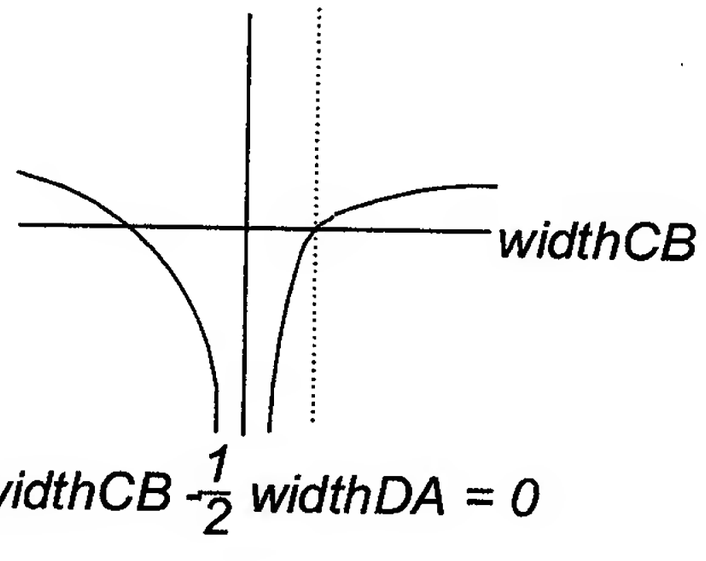


FIG. 17A

Bisector(A, B, C, D) = a linear transformation of (β(1,0), (0,1), β(1,0), (0,-1))

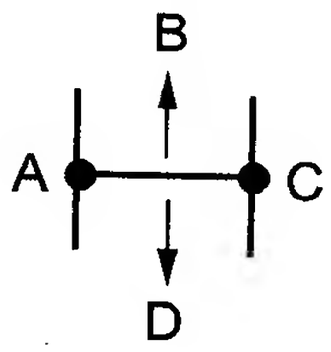


FIG. 17B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\frac{widthCA}{widthBD}$$
$$widthCA \geq 0$$
$$widthBD \leq 0$$

FIG. 17C

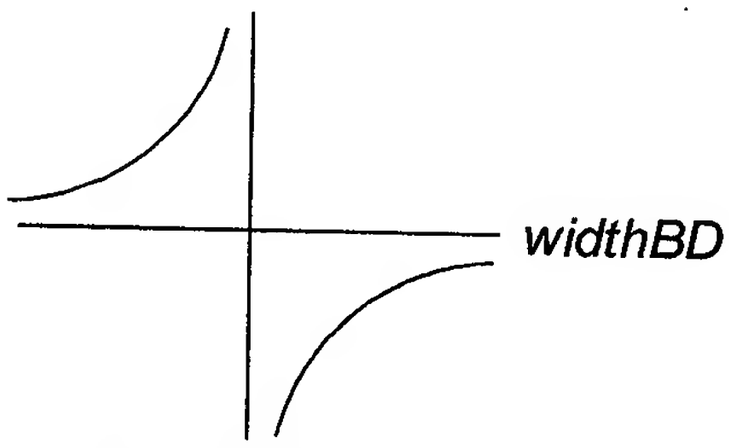
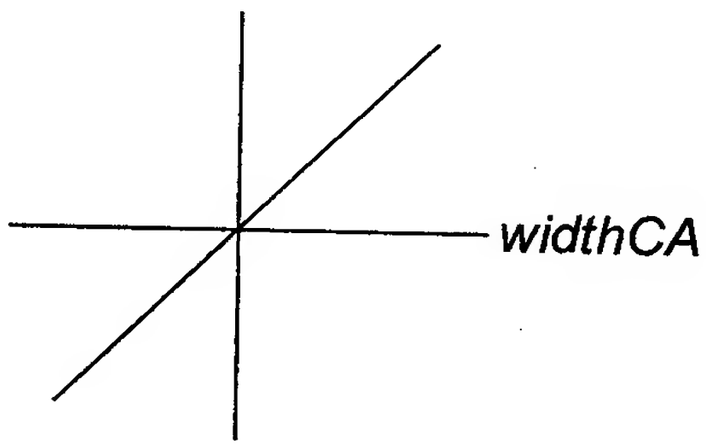


FIG. 18A



Bisector(A, B, C, D) = a rotation or reflection of gradients ((-1,0), (0,-1), (1,0), (0,1))

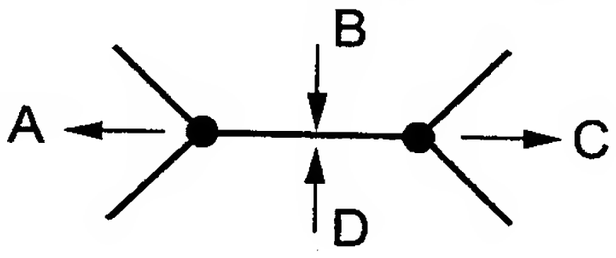
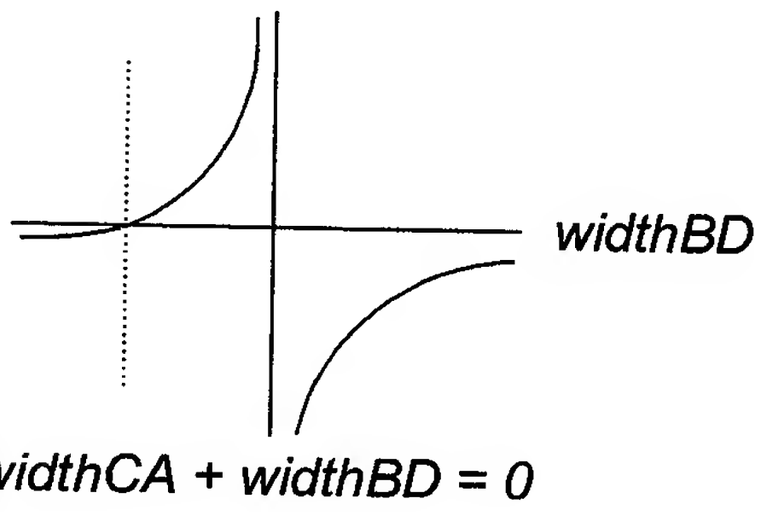


FIG. 18B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\,(widthCA + widthBD)}{widthBD}$$
$$widthCA + widthBA \geq 0$$
$$widthBD \geq 0$$

FIG. 18C



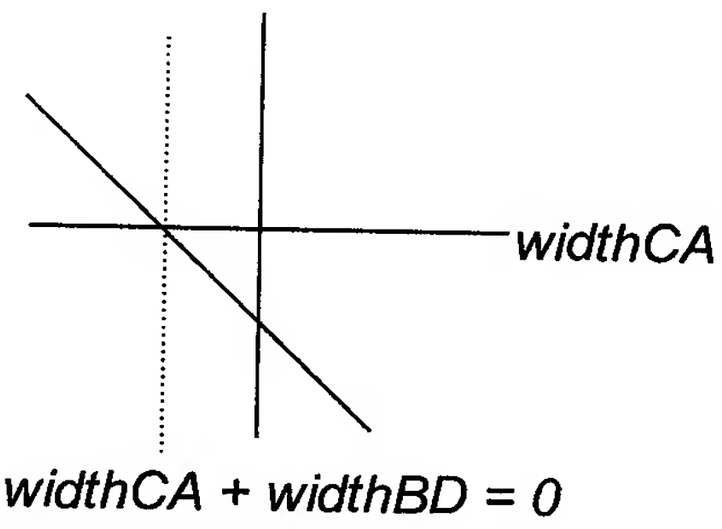
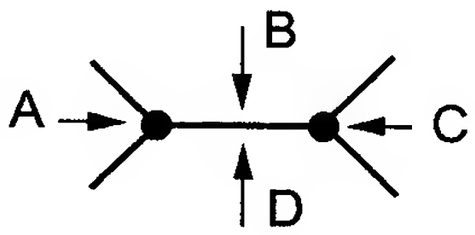


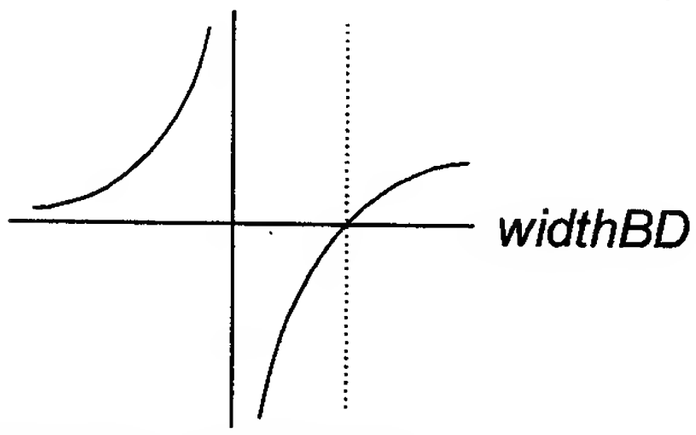
FIG. 19A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,-1), (-1,0), (0,1))



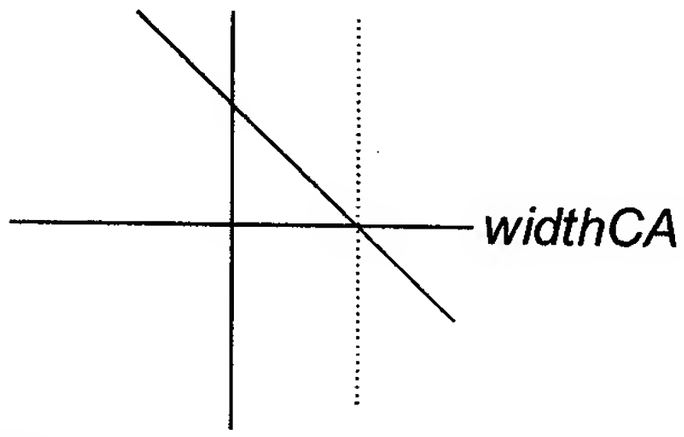
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\ (widthCA - widthBD)}{widthBD}$$
$$widthCA - widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 19B



$widthCA - widthBD = 0$

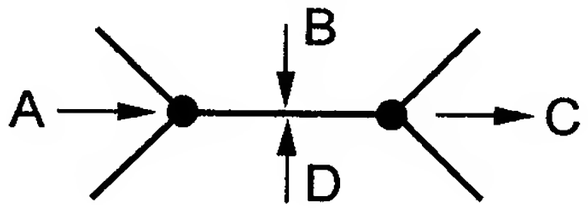
FIG. 19C



$widthCA - widthDB = 0$

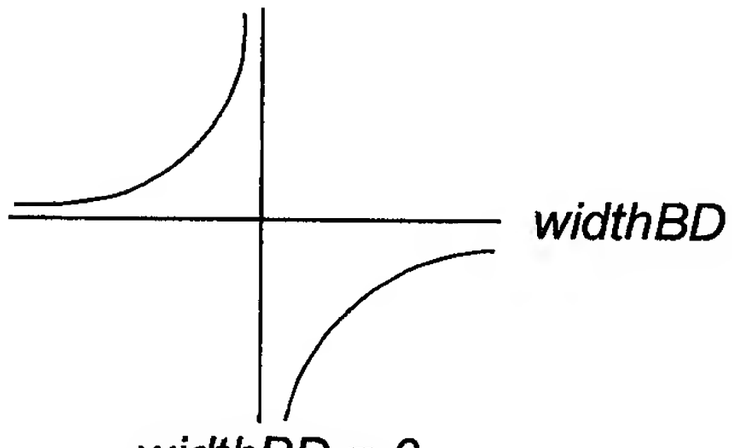
FIG. 20A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,-1), (1,0), (0,1))



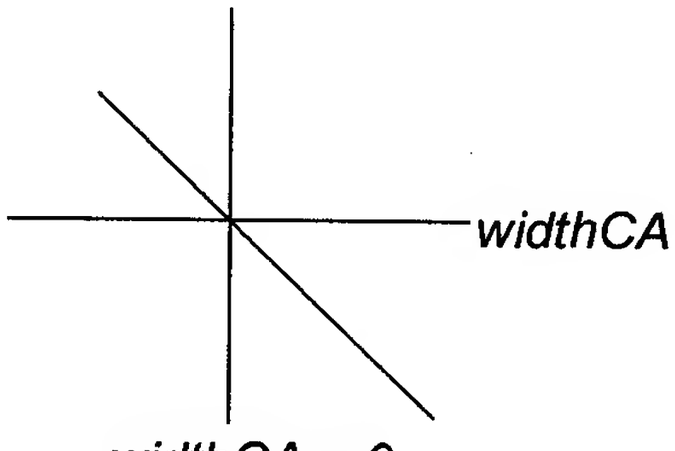
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\frac{widthCA}{widthBD}$$
$$widthCA \geq 0$$
$$widthBD \geq 0$$

FIG. 20B



$widthBD = 0$

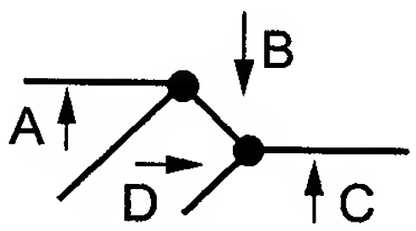
FIG. 20C



$widthCA = 0$

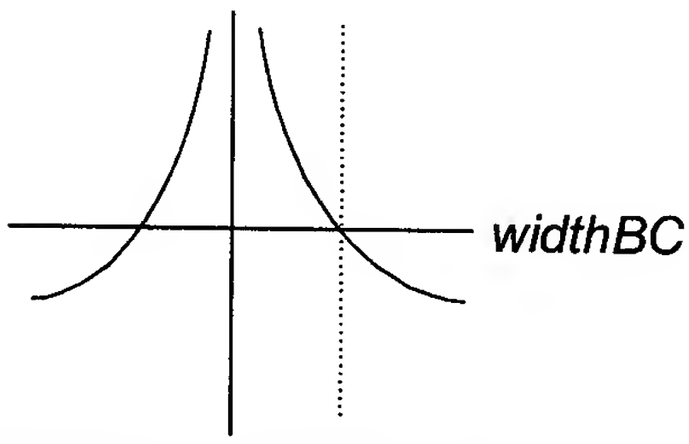
FIG. 21A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (0,-1), (0,1), (1,0))



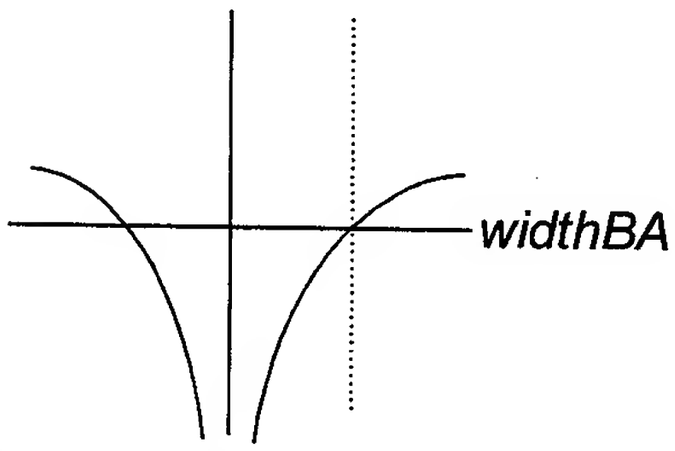
$$widthBC = y_B - y_C$$
$$widthBA = y_B - y_A$$
$$CriticalArea = -\frac{k}{2} \ln \frac{widthBC}{widthBA}$$
$$widthBC - widthBA \geq 0$$
$$widthBA \geq 0$$

FIG. 21B



$widthBC - widthBA = 0$

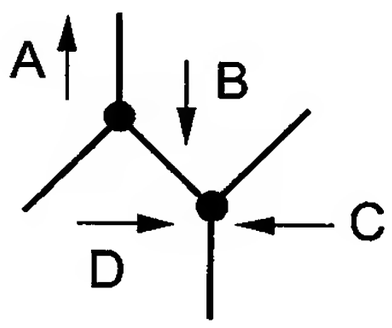
FIG. 21C



$widthBC - widthBA = 0$

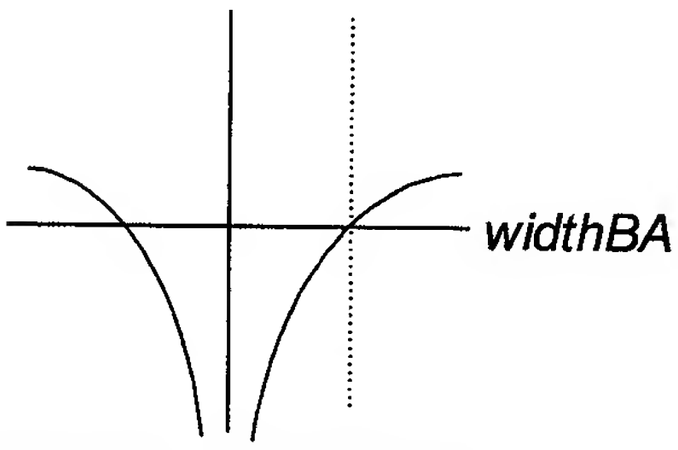
FIG. 22A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (0,-1), (-1,0), (1,0))



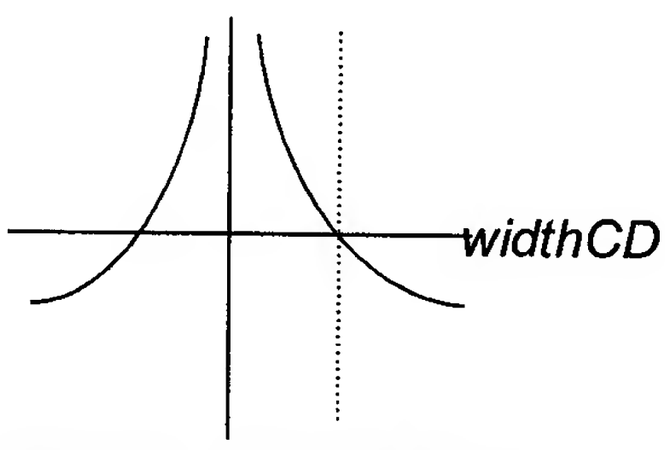
$$widthBA = y_B - y_A$$
$$widthCD = x_C - x_D$$
$$CriticalArea = -\frac{k}{2} \ln \frac{widthCD}{widthBA}$$
$$widthCD - widthBA \geq 0$$
$$widthBA \geq 0$$

FIG. 22B



$widthCD - widthBA = 0$

FIG. 22C



$widthCD - widthBA = 0$

FIG. 23A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((-1,0), (0,-1), β(1,0), (0,1))

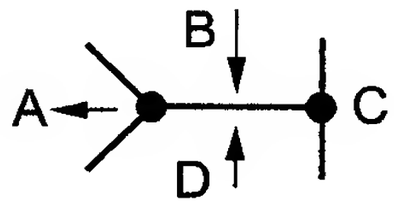


FIG. 23B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\left(widthCA + \frac{1}{2}widthBD\right)}{widthBD}$$
$$widthCA + \frac{1}{2}widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 23C

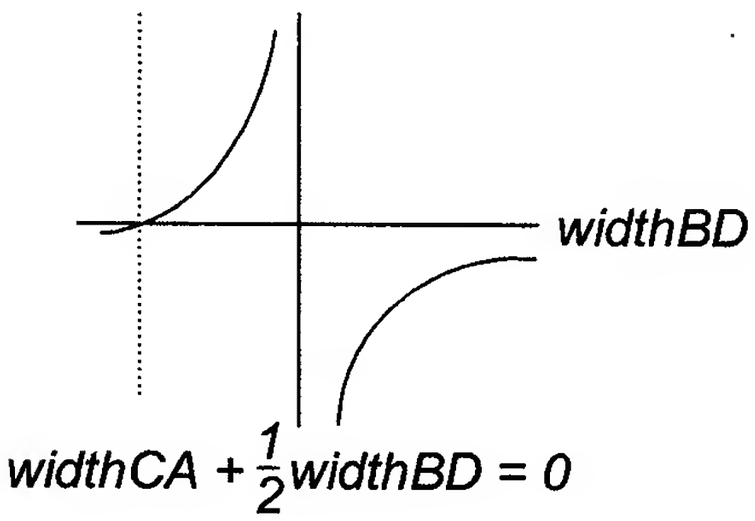
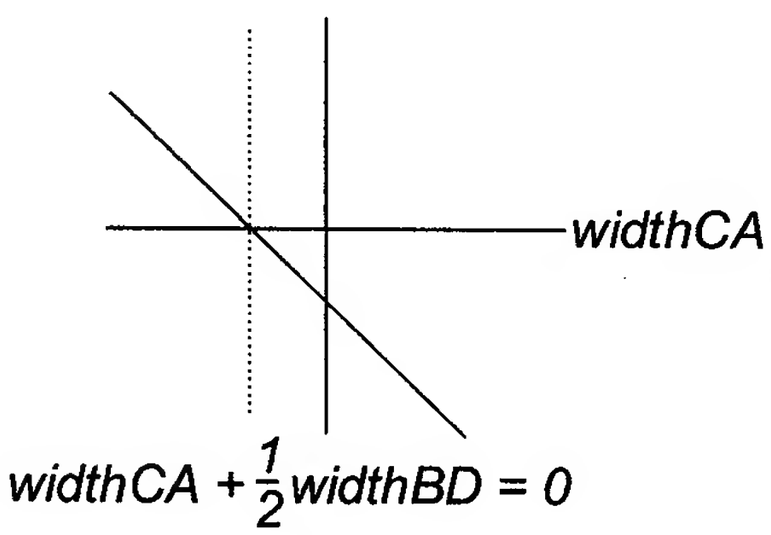


FIG. 24A



Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), (0,-1), β(1,0), (0,1))

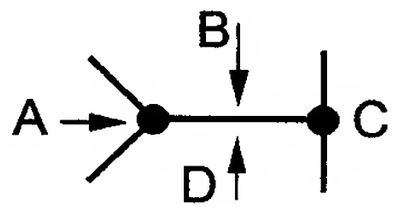
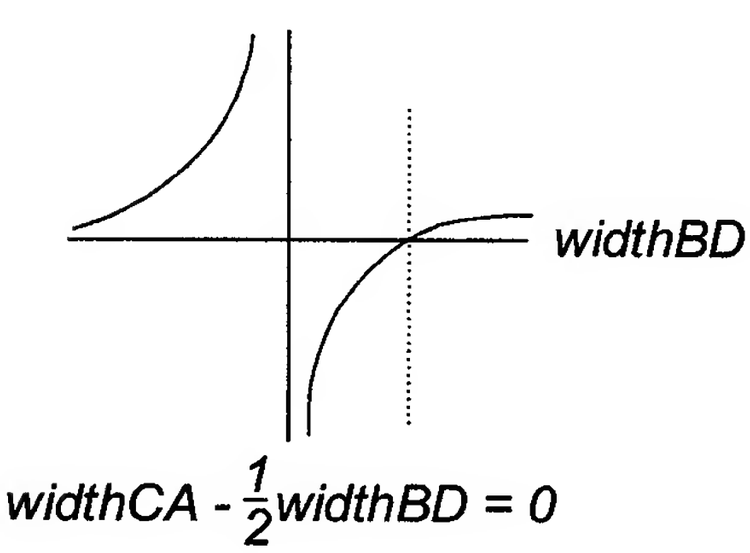


FIG. 24B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\left(widthCA - \frac{1}{2}widthBD\right)}{widthBD}$$
$$widthCA - \frac{1}{2}widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 24C



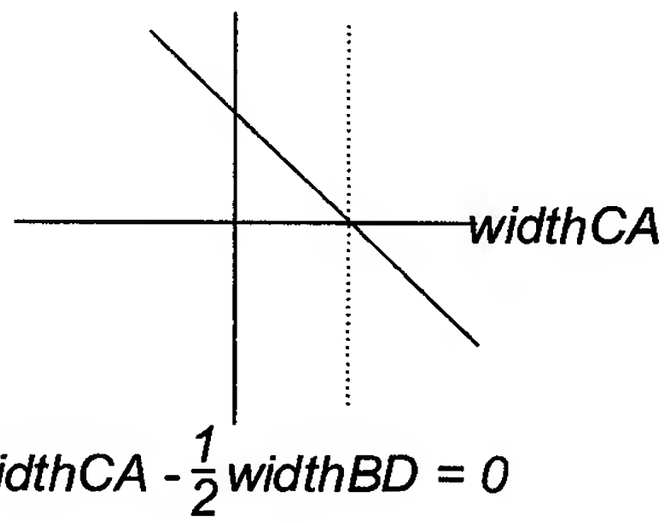


FIG. 25A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), (0,-1), β(1,0), (1,0))

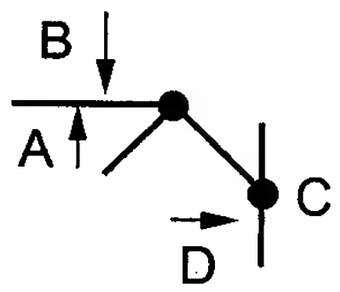
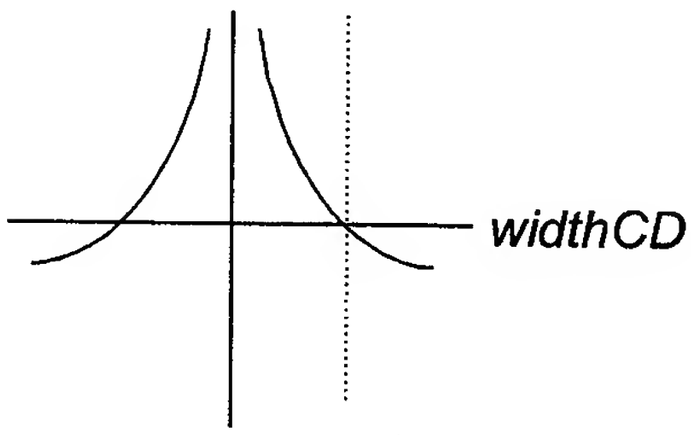


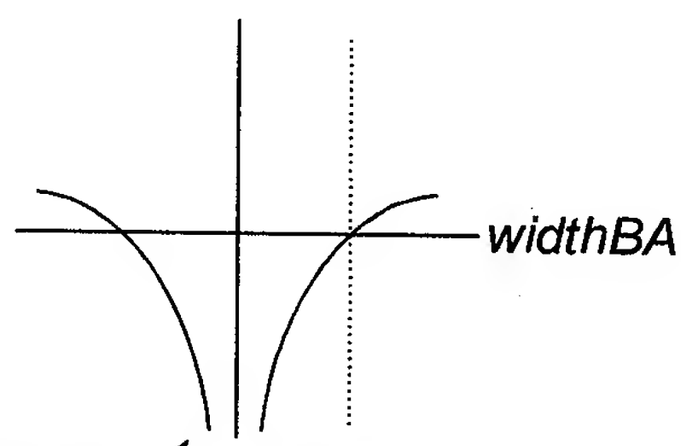
FIG. 25B

$$widthDC = y_D - y_C$$
$$widthBA = y_B - y_A$$
$$CriticalArea = -\frac{k}{2}\left(\ln\frac{widthCD}{widthBA} + \ln 2\right)$$
$$widthCD - \frac{1}{2}widthBA \geq 0$$
$$widthBA \geq 0$$

FIG. 25C



$$widthCD - \frac{1}{2}widthBA = 0$$



$$widthCD = \frac{1}{2}widthBA = 0$$

FIG. 26A

Bisector(A, B, C, D) = a rotation or reflections of gradients (β(1,0), (0,1), β(1,0), (0,-1))

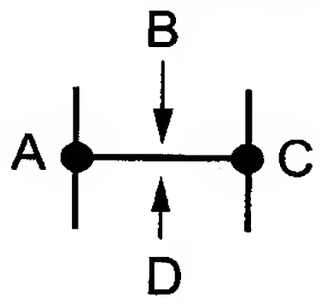
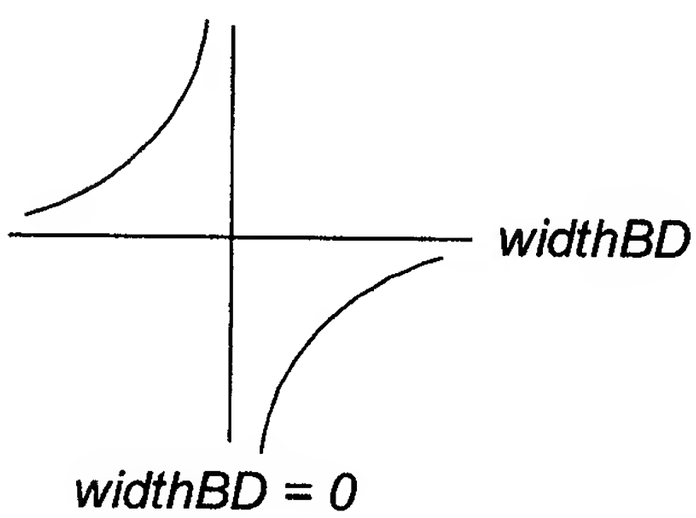


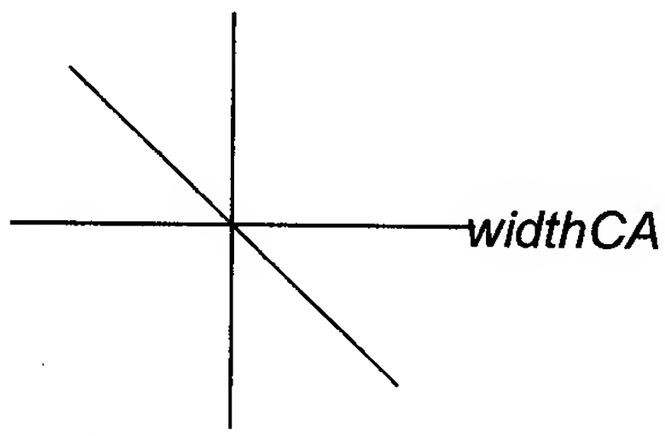
FIG. 26B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\frac{widthCA}{widthBD}$$
$$widthCA \geq 0$$
$$widthBD \geq 0$$

FIG. 26C



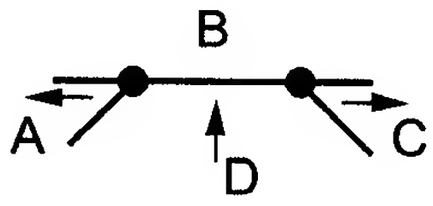
$$widthBD = 0$$



$$widthCA = 0$$

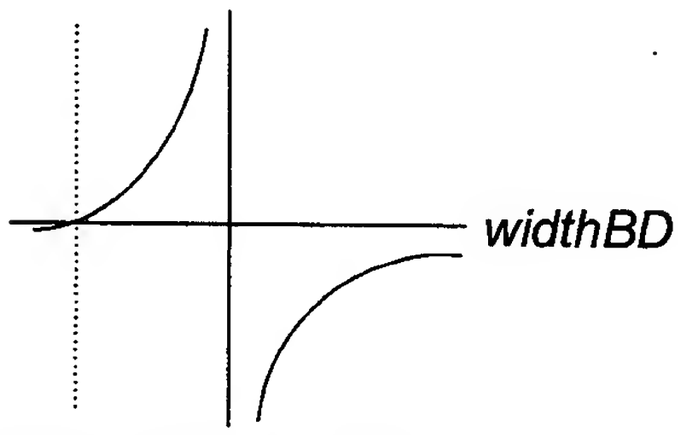
FIG. 27A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((-1,0), β(0,1), (1,0), (0,1))



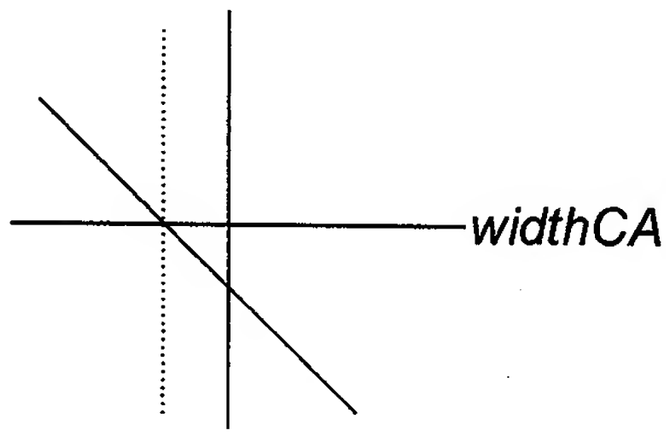
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\left(\frac{1}{2}widthCA + widthBD\right)}{widthBD}$$
$$\frac{1}{2}widthCA + widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 27B



$\frac{1}{2}widthCA + widthBD = 0$

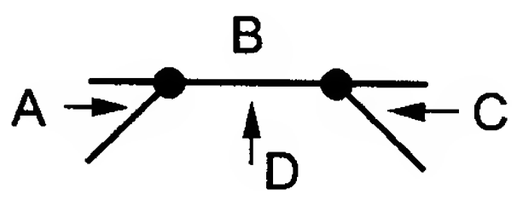
FIG. 27C



$\frac{1}{2}widthCA + widthBD = 0$

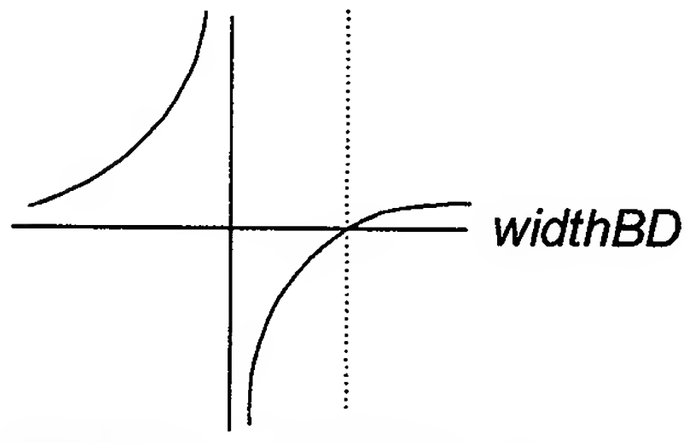
FIG. 28A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), β(0,1), (-1,0), (0,1))



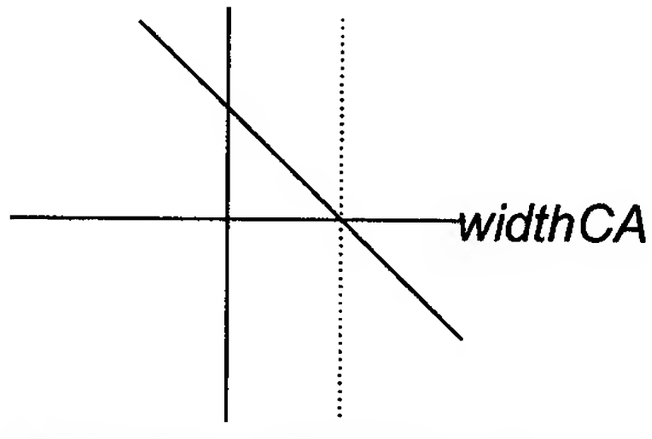
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k}{2}\frac{\left(\frac{1}{2}widthCA - widthBD\right)}{widthBD}$$
$$\frac{1}{2}widthCA - widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 28B



$widthCA - widthBD = 0$

FIG. 28C



$widthCA - widthBD = 0$

FIG. 29A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), β(0,1), (1,0), (0,1))

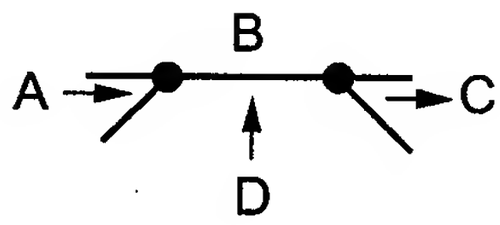
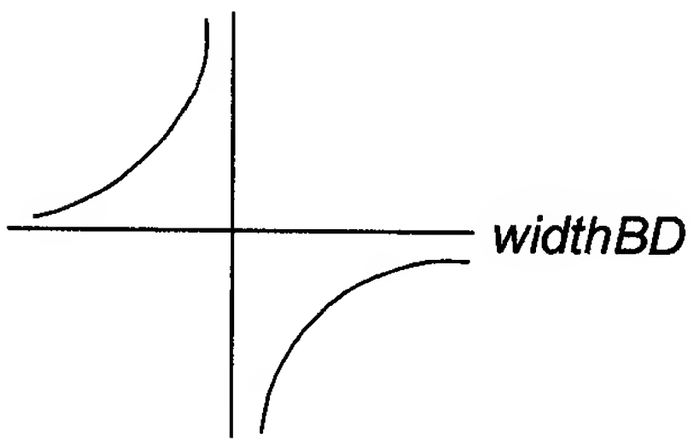


FIG. 29B

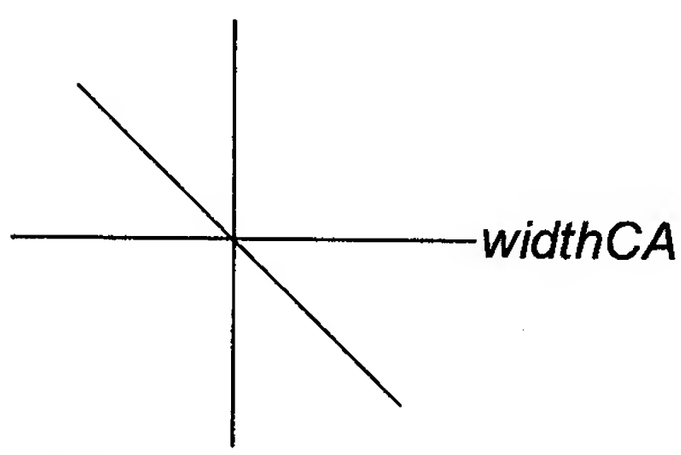
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\,\frac{widthCA}{4widthBD}$$
$$widthCA \geq 0$$
$$widthBD \geq 0$$

FIG. 29C



widthBD = 0

FIG. 30A



widthCA = 0

Bisector(A, B, C, D) = a rotation or reflection of gradients ((-1,0), β(0,1), β(1,0), (0,1))

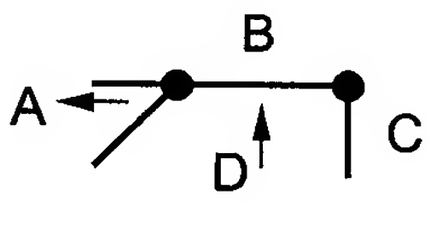
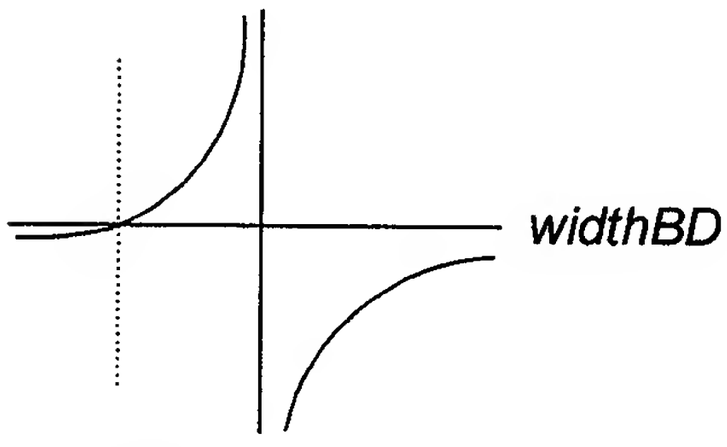


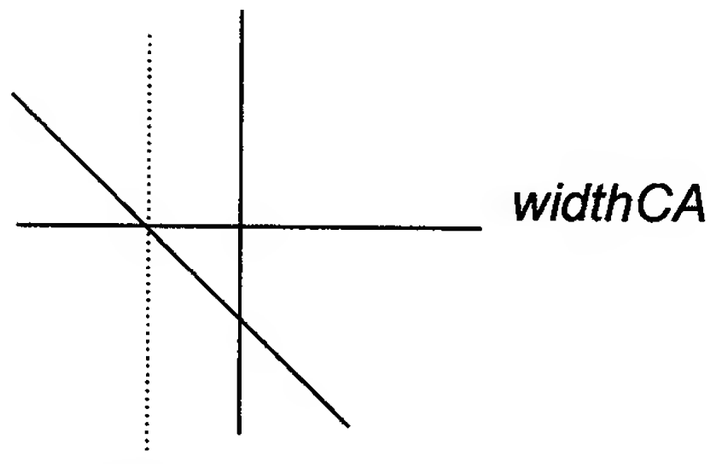
FIG. 30B

$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k\,(widthCA + widthBD)}{4widthBD}$$
$$widthCA + widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 30C



widthCA + widthBD = 0



widthCA + widthBD= 0

FIG. 31A

Bisector(A, B, C, D) = a rotation or reflection of gradients ((1,0), β(0,1), β(1,0), (0,1))

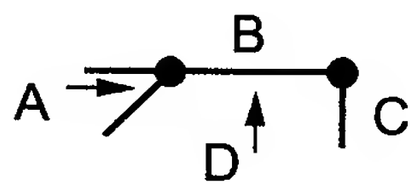
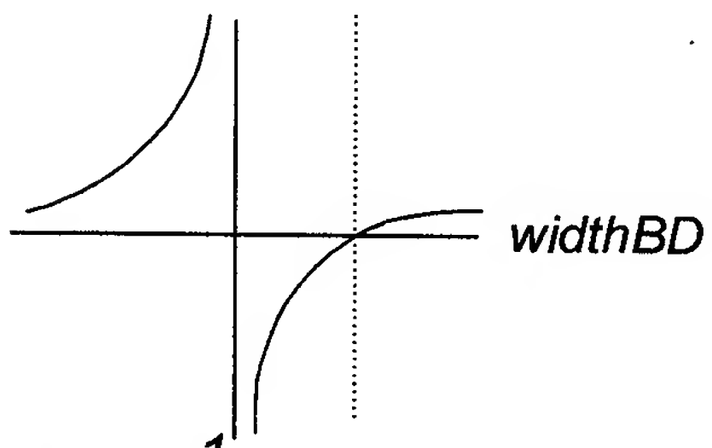


FIG. 31B

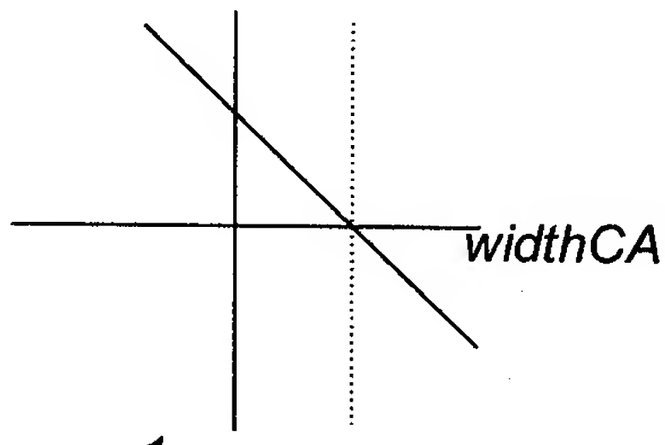
$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -\frac{k(widthCA - widthBD)}{4widthBD}$$
$$widthCA - widthBD \geq 0$$
$$widthBD \geq 0$$

FIG. 31C



$$widthCA - \frac{1}{2}widthBD = 0$$

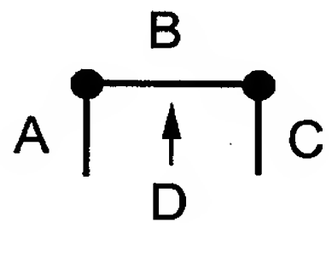
FIG. 32A



$$widthCA - \frac{1}{2}widthBD = 0$$

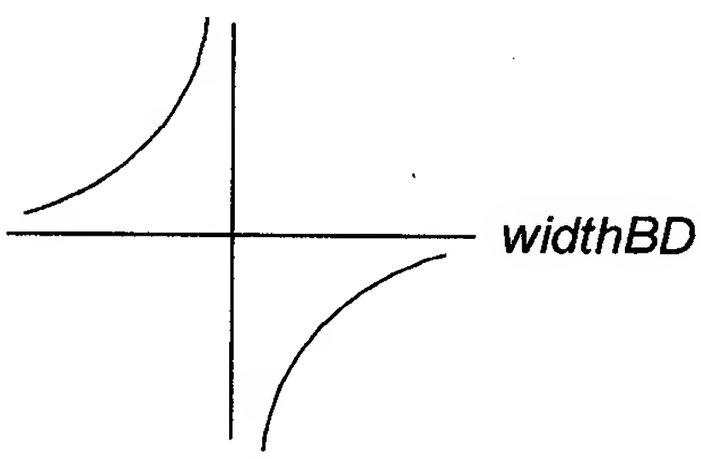
FIG. 32B

Bisector(A, B, C, D) = a rotation or reflection of gradients (β(1,0), β(0,1), β(1,0), (0,1))

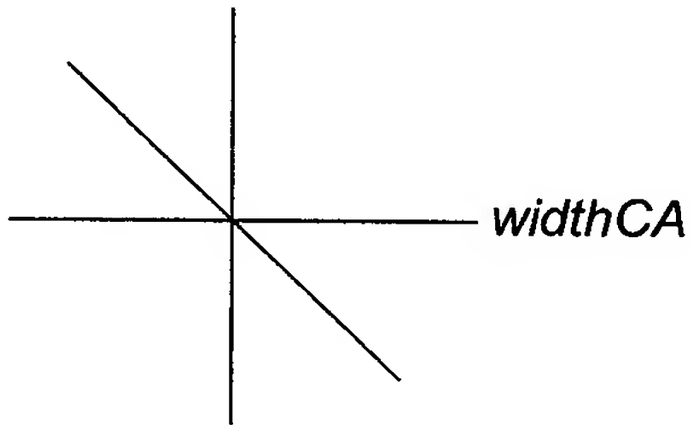


$$widthCA = x_C - x_A$$
$$widthBD = y_B - y_D$$
$$CriticalArea = -k\frac{widthCA}{4widthBD}$$
$$widthCA \geq 0$$
$$widthBD \geq 0$$

FIG. 32C



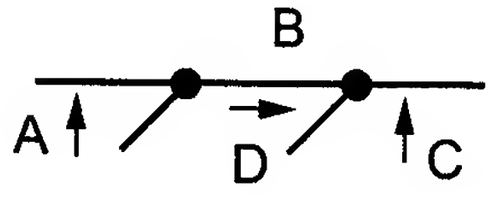
$$widthBD = 0$$



$$widthCA = 0$$

FIG. 33

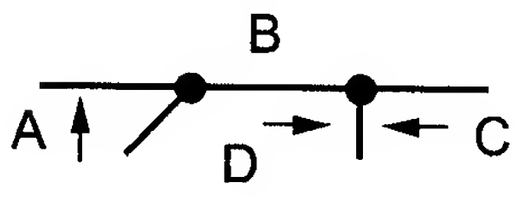
Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), β(0,1), (0,1), (1,0))



Ignored. No contribution to critical area.

FIG. 34

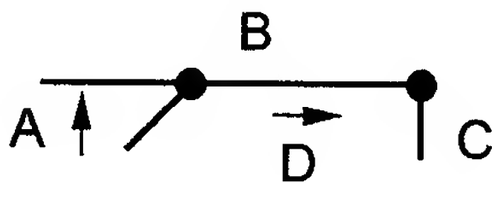
Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), β(0,1), (-1,0), (1,0))



Ignored. No contribution to critical area.

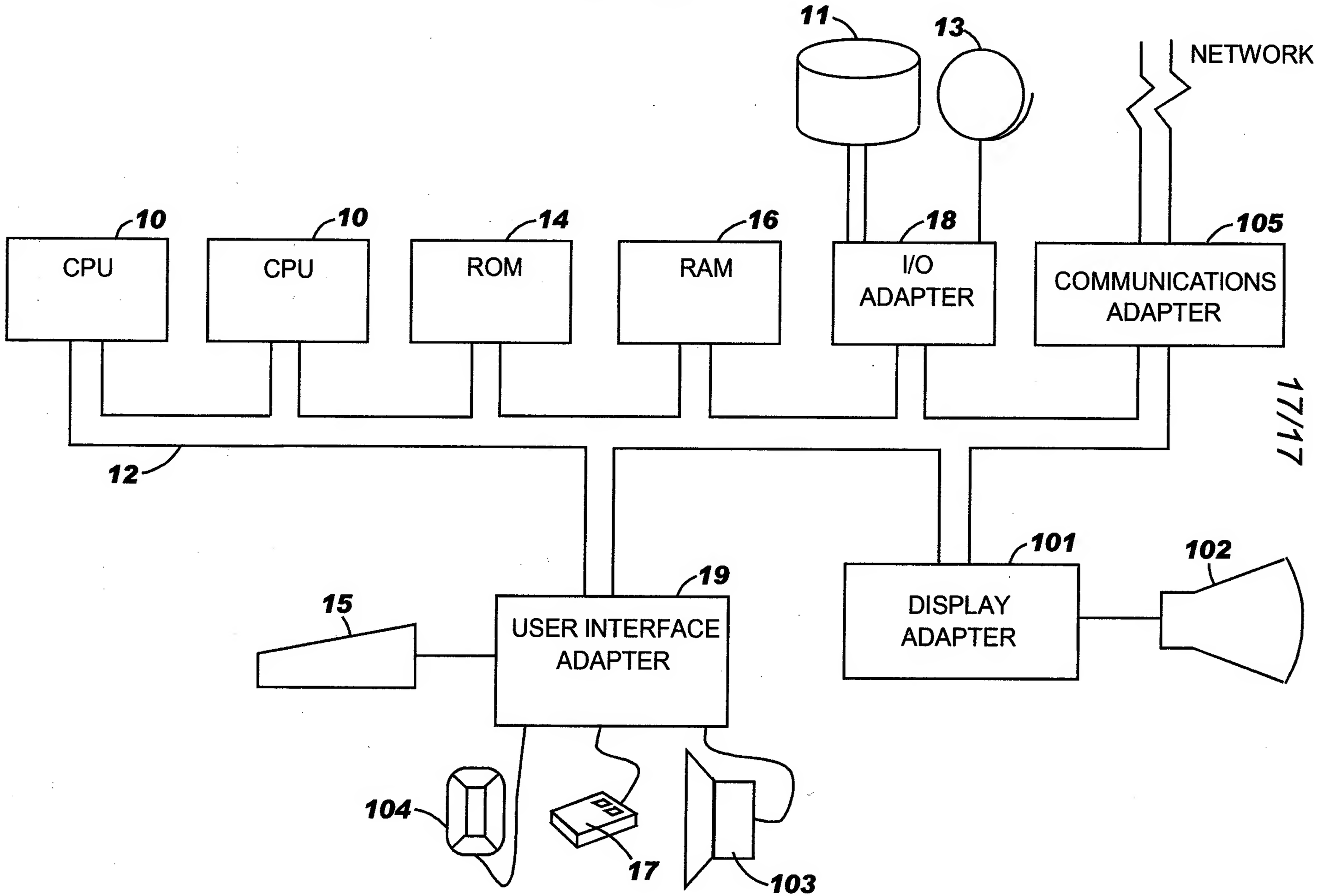
FIG. 35

Bisector(A, B, C, D) = a rotation or reflection of gradients ((0,1), β(0,1), β(1,0), (1,0))



Ignored. No contribution to critical area.

FIG. 36


11
13
NETWORK
10
10
14
16
18
105
CPU
CPU
ROM
RAM
I/O ADAPTER
COMMUNICATIONS ADAPTER
12
19
101
102
15
USER INTERFACE ADAPTER
DISPLAY ADAPTER
104
17
103